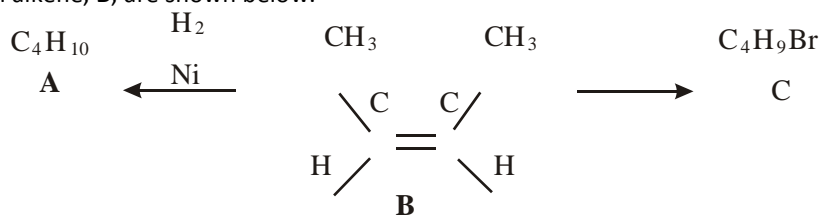


T10D06 – 10.3 IB Practice

Name.....

1. Two reactions of an alkene, **B**, are shown below.



- (i) State the name of **A** and write an equation for its complete combustion. Explain why the incomplete combustion of **A** is dangerous.

(5)

- (ii) Outline a test to distinguish between **A** and **B**, stating the result in each case.

(3)

- (iii) Write an equation for the conversion of **B** to **C**. State the type of reaction taking place and draw the structure of **C**.

(3)

(Total 11 marks)

2. For the two compounds $\text{HCOOCH}_2\text{CH}_3$ and HCOOCHCH_2 :

I

II

- (i) State and explain which of the two compounds can react readily with bromine.

(2)

- (ii) Compound II can form polymers. State the type of polymerization compound II undergoes, and draw the structure of the repeating unit of the polymer.

(2)

(Total 4 marks)

3. Identify which of the compounds butane, chloroethane, propanone and propan-1-ol are

- (i) insoluble in water and give your reasoning.

(2)

- (ii) water soluble and give your reasoning.

(2)

(Total 4 marks)

4. The plastic PVC, poly(chloroethene), is made from the monomer chloroethene, C_2H_3Cl , by a polymerization reaction.

(i) Draw the structural formula of chloroethene.

(1)

(ii) State the type of polymerization reaction that occurs to make poly(chloroethene) and identify the structural feature needed in the monomer.

(2)

(iii) Draw the structure of the repeating unit of poly(chloroethene).

(1)

(iv) Explain why monomers are often gases or volatile liquids, whereas polymers are solids.

(2)

(Total 6 marks)